

## Section I (Amendments to the Claims)

Please amend claim 1 as set out in the following listing of the claims of the application.

1. **(Currently amended)** A *SGR* gene encoding a polypeptide comprising ~~amino acid sequence having at least 60% homology with SGR domain I which is conserved amino acid sequence region of 49~207 among amino acid sequence of SEQ ID NO: 30, and inducing leaf yellowing by participating in chlorophyll catabolism during plant senescence, wherein the SGR gene encodes a polypeptide presented by the~~ an amino acid sequence selected from the group consisting of SEQ ID NOs: 30 to 58.

2. **(Cancelled)**

3. **(Cancelled)**

4. **(Previously presented)** The *SGR* gene according to claim 1, wherein the *SGR* gene comprises the DNA sequence selected from the group consisting of SEQ ID NOs: 1 to 29.

5. **(Withdrawn)** A polypeptide encoded by the *SGR* gene of claim 4.

6. **(Previously presented)** A recombinant vector comprising the *SGR* gene of claim 1.

7. **(Original)** A microorganism transformed with the recombinant vector of claim 6.

8. **(Previously presented)** A plant transformed with the *SGR* gene of claim 1.

9. **(Withdrawn)** A method for producing a stay-green mutant plant, which comprises mutating *SGR* gene of yellowing plants or fragments thereof.

10. **(Withdrawn)** The method according to claim 9, wherein the *SGR* gene encodes the polypeptide comprising amino acid sequence having at least 60% homology with SGR domain I which is conserved amino acid sequence region of 49~207 among amino acid sequence of SEQ ID NO: 30.

11. **(Withdrawn)** The method according to claim 10, wherein the polypeptide comprises the chloroplast-targeting signal peptide sequence and SGR domain II, and/or SGR domain III which contains 2~6 conserved glutamines (Qs) in C-terminal region.
12. **(Withdrawn)** The method according to claim 10, wherein the *SGR* gene comprises the base sequence selected from the group consisting of SEQ ID NOs:1 to 21 and 28.
13. **(Withdrawn)** The method according to claim 9, wherein the *SGR* gene fragment comprises the DNA sequence selected from the group consisting of SEQ ID NOs: 21 to 29.
14. **(Withdrawn)** The method according to claim 9, wherein the mutating of *SGR* gene is carried out by deleting a part of base of said gene, substituting other singular or plural bases for a part of base of said gene, or adding other singular or plural bases to said gene.
15. **(Withdrawn)** The method according to claim 12, wherein A substitutes for the 295<sup>th</sup> base G in the *SGR* gene of SEQ ID NO:1.
16. **(Withdrawn)** A stay-green mutant plant produced by the method of claim 9.
17. **(Withdrawn)** A method for producing a stay-green mutant plant, which comprises suppressing the expression of the *SGR* gene in yellowing plant.
18. **(Withdrawn)** The method according to claim 17, wherein the *SGR* gene encodes the polypeptide comprising amino acid sequence having at least 60% homology with SGR domain I which is conserved amino acid sequence region of 49~207 among amino acid sequence of SEQ ID NO: 30.
19. **(Withdrawn)** The method according to claim 18, wherein the polypeptide comprises the chloroplast-targeting signal peptide sequence and SGR domain II, and/or SGR domain III which contains 2~6 conserved glutamines (Qs) in C-terminal region.
20. **(Withdrawn)** The method according to claim 18, wherein the *SGR* gene comprises the base sequence selected from the group consisting of SEQ ID NOs:1 to 21 and 28.
21. **(Withdrawn)** The method according to claim 17, wherein suppressing the expression of the *SGR* gene is performed by gene silencing technique.

22. **(Withdrawn)** A stay-green mutant plant produced by the method of claim 17.
23. **(Withdrawn)** A method for producing a stay-green mutant plant, which comprises the steps of:
- (a) obtaining a recombinant vector by introducing a *SGR* gene or a fragment thereof originated from target plant to be mutated, to T-DNA vector; and
  - (b) transforming a wild type plant with the recombinant vector.
24. **(Withdrawn)** The method according to claim 23, wherein the *SGR* gene encodes the polypeptide comprising amino acid sequence having at least 60% homology with SGR domain I which is **conserved** amino acid sequence region of 49~207 among amino acid sequence of SEQ ID NO: 30.
25. **(Withdrawn)** The method according to claim 24, wherein the polypeptide comprises the chloroplast-targeting signal peptide sequence and SGR domain II, and/or SGR domain III which contains 2~6 conserved glutamines (Qs) in C-terminal region.
26. **(Withdrawn)** The method according to claim 24, wherein the *SGR* gene comprises the base sequence selected from the group consisting of SEQ ID NOs:1 to 21 and 28.
27. **(Withdrawn)** The method according to claim 23, wherein the *SGR* gene fragment comprises the DNA sequence selected from the group consisting of SEQ ID NOs: 21 to 29.
28. **(Withdrawn)** The method according to claim 23, wherein the T-DNA vector is a vector for RNAi which induces gene silencing by making the double-stranded RNA (dsRNA) in a transgenic plant.
29. **(Withdrawn)** The method according to claim 23, wherein the recombinant vector comprises CaMV35s promoter or senescence-enhanced promoter.
30. **(Withdrawn)** A stay-green mutant plant produced by the method of claim 23.
31. **(Withdrawn)** A method for producing a stay-green mutant plant, which comprises inactivating the protein encoded by the *SGR* gene in yellowing plant.

32. **(Withdrawn)** The method according to claim 31, wherein the *SGR* gene encodes the polypeptide comprising amino acid sequence having at least 60% homology with SGR domain I which is conserved amino acid sequence region of 49~207 among amino acid sequence of SEQ ID NO: 30.

33. **(Withdrawn)** The method according to claim 32, wherein the polypeptide comprises the chloroplast-targeting signal peptide sequence and SGR domain II, and/or SGR domain III which contains 2~6 conserved glutamines (Qs) in C-terminal region.

34. **(Withdrawn)** The method according to claim 32, wherein the *SGR* gene comprises the base sequence selected from the group consisting of SEQ ID NOs: 1 to 21 and 28.

35. **(Withdrawn)** A stay-green mutant plant produced by the method of claim 31.